Blending Innovative and Traditional LID in Transportation: Mize Boulevard Lake

Putting the LID on Stormwater Management
September 21, 2004

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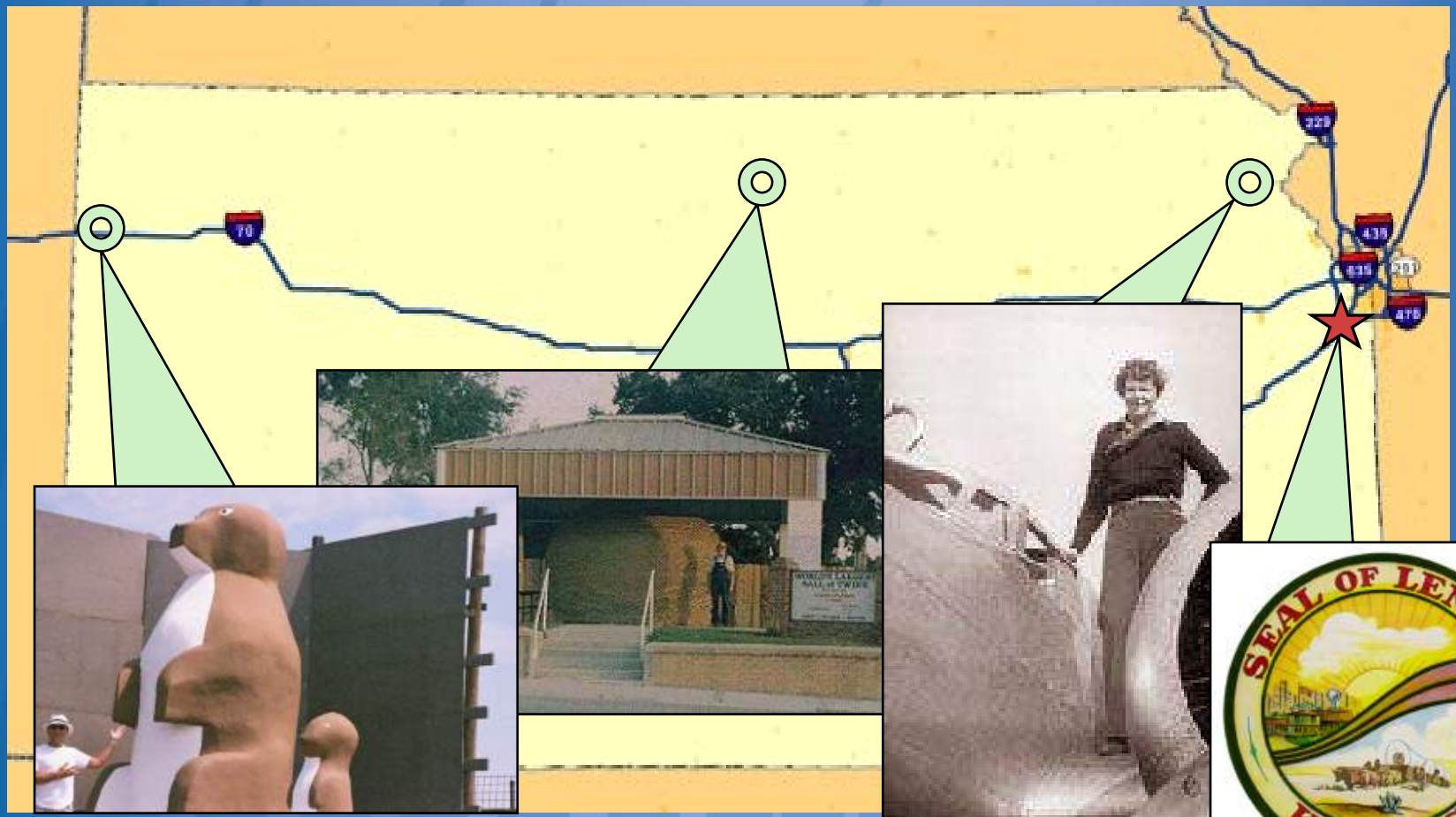
HNTB Corporation

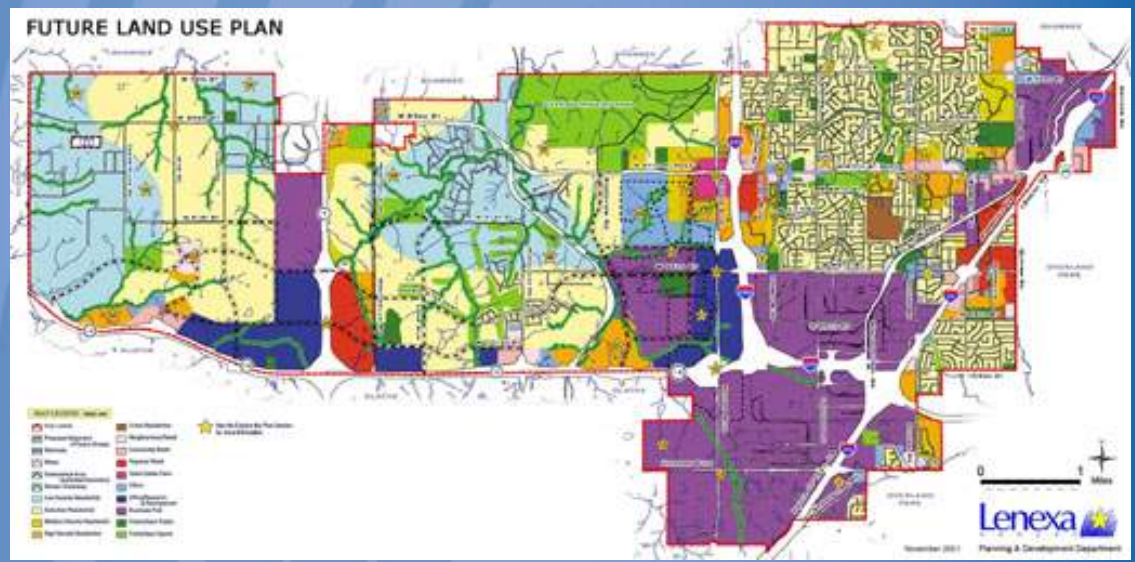
Background - Where is Lenexa, Kansas?



Background - Lenexa, Kansas

- Size – 34 Square Miles
- Population – 45,000
- Per Capita Income - $60K
- Median Age – 35
- Highly Educated

Vision 2020



Background – Vision 2020

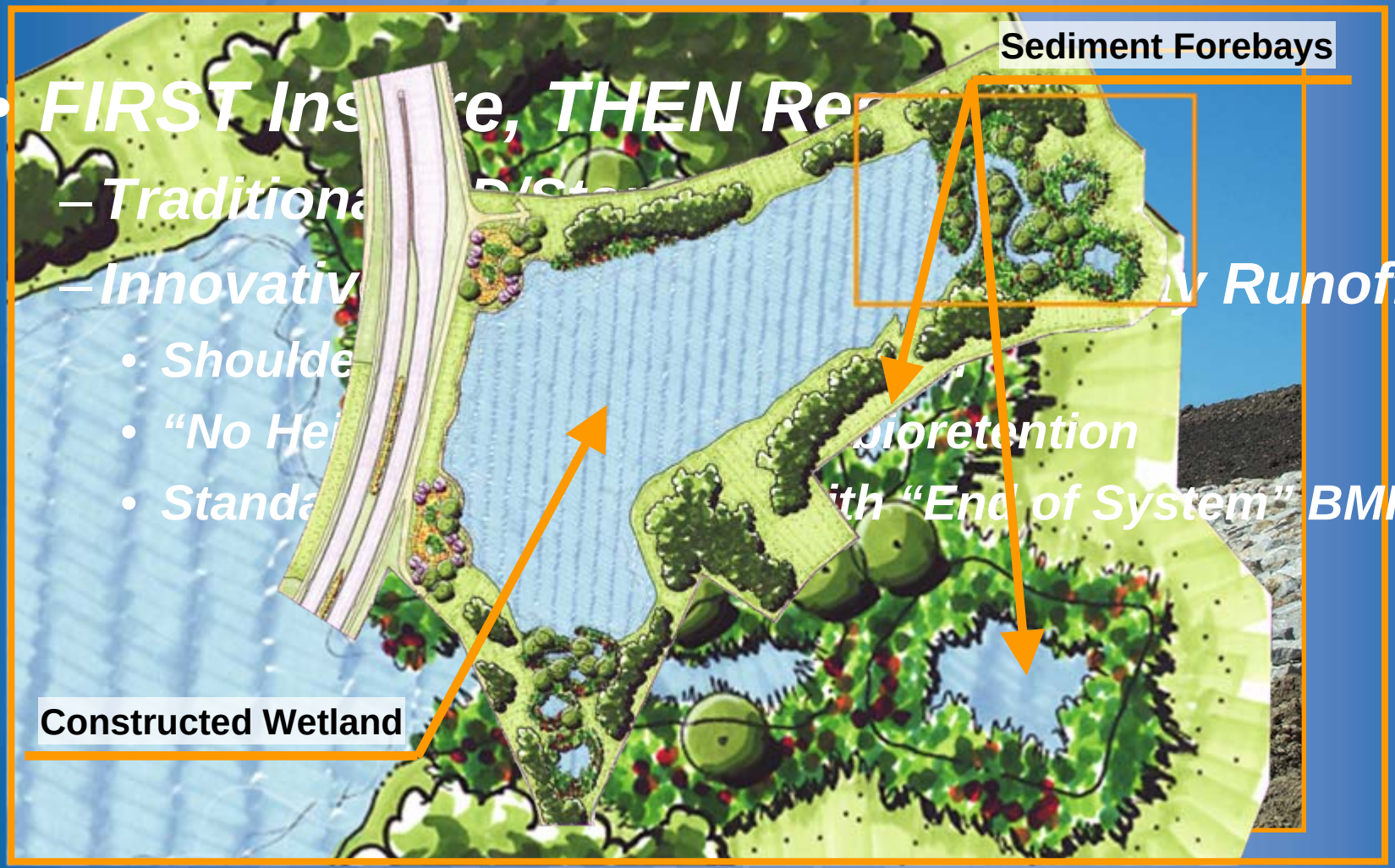
- ***Rain to Recreation Program***
- ***1/8 Cent Sales Tax – 78% Voter Approval***

➢ ***Regional Lakes***

➢ ***Stream Setbacks***

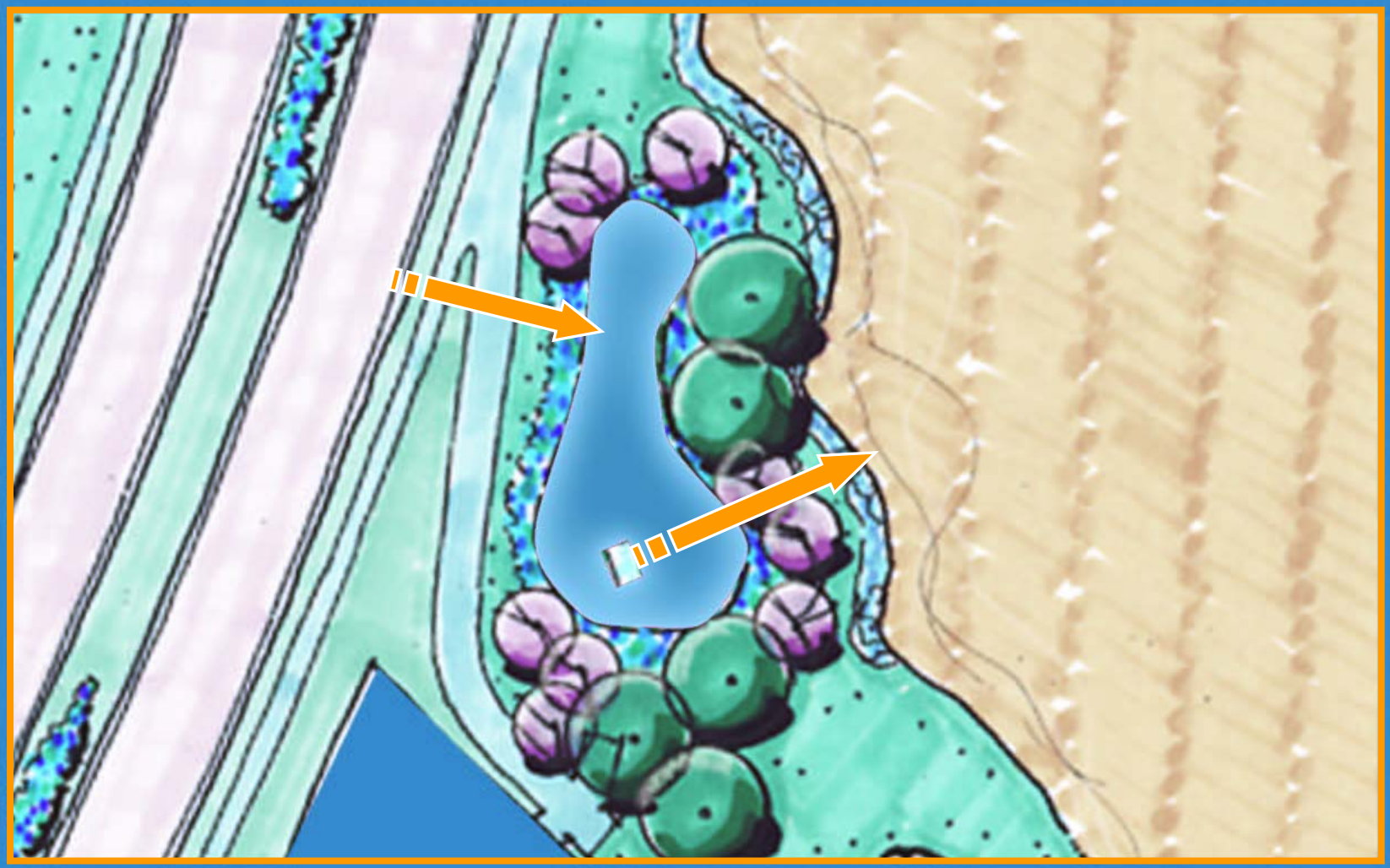
➢ ***LID Approach***

Approach



- *FIRST Ins re, THEN Re*
  - *Traditiona*
  - *Innovativ* *w Runoff*
    - *Shoulde*
    - *"No Hei* *ioretention*
    - *Standa* *ith "End of System" BMP*

Bioretention at Storm Sewer Outlets



Bioretention at Storm Sewer Outlets

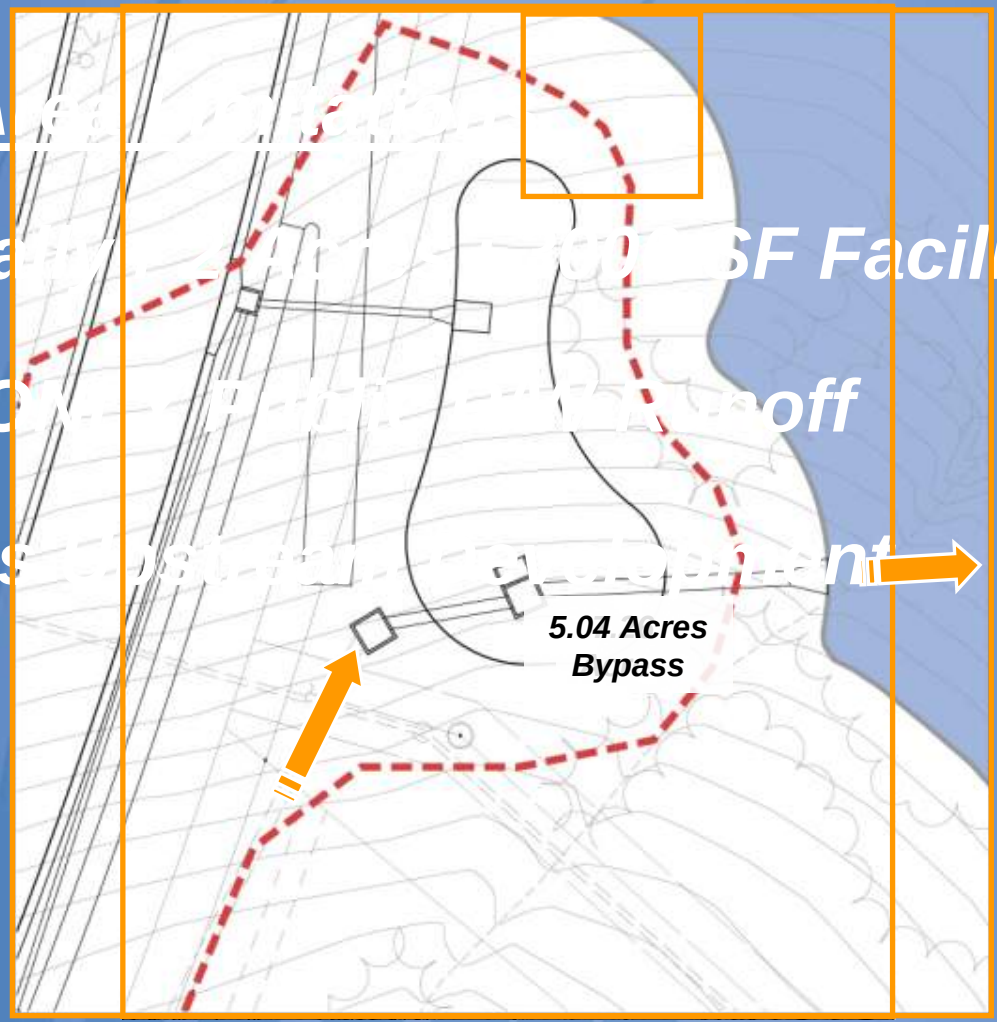
Design Challenges

- ***Drainage Area Limitations***
- ***Energy Dissipation***
- ***R/W Constraints***

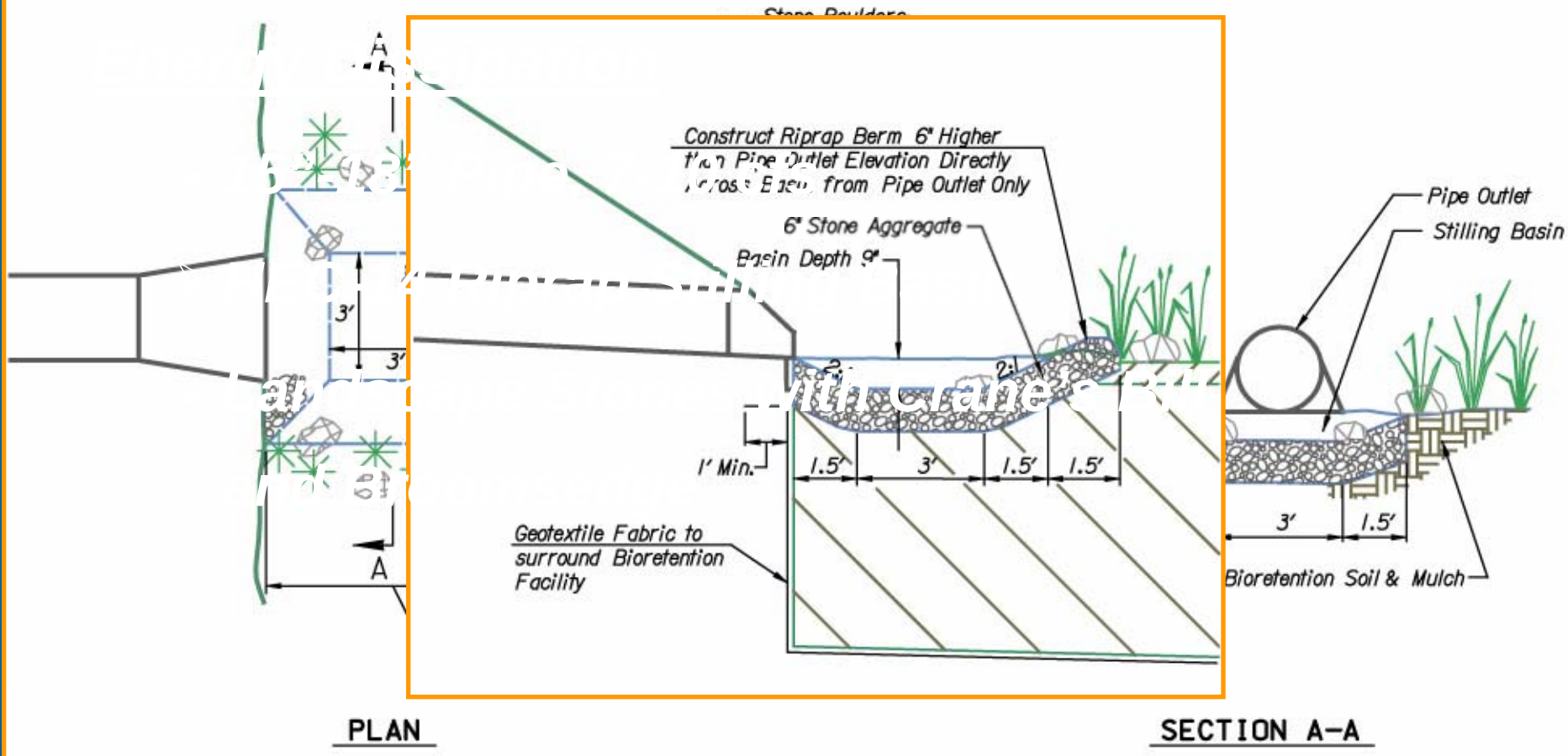
Bioretention at Storm Sewer Outlets – Design Challenges

Drainage A[illegible]

- Genera[illegible] [illegible]SF Facility
- Treat O[illegible] [illegible]noff
- Bypass [illegible]nt



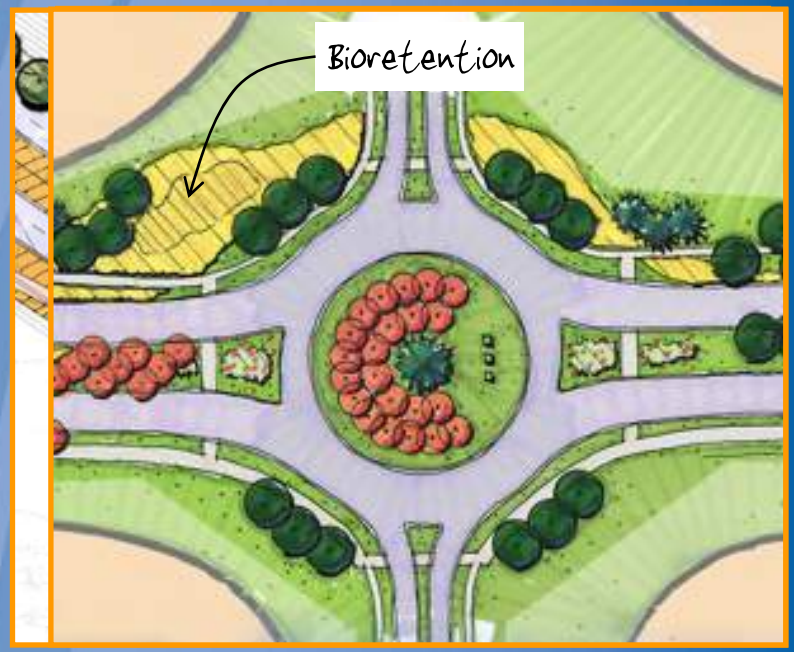
Bioretention at Storm Sewer Outlets – Design Challenges



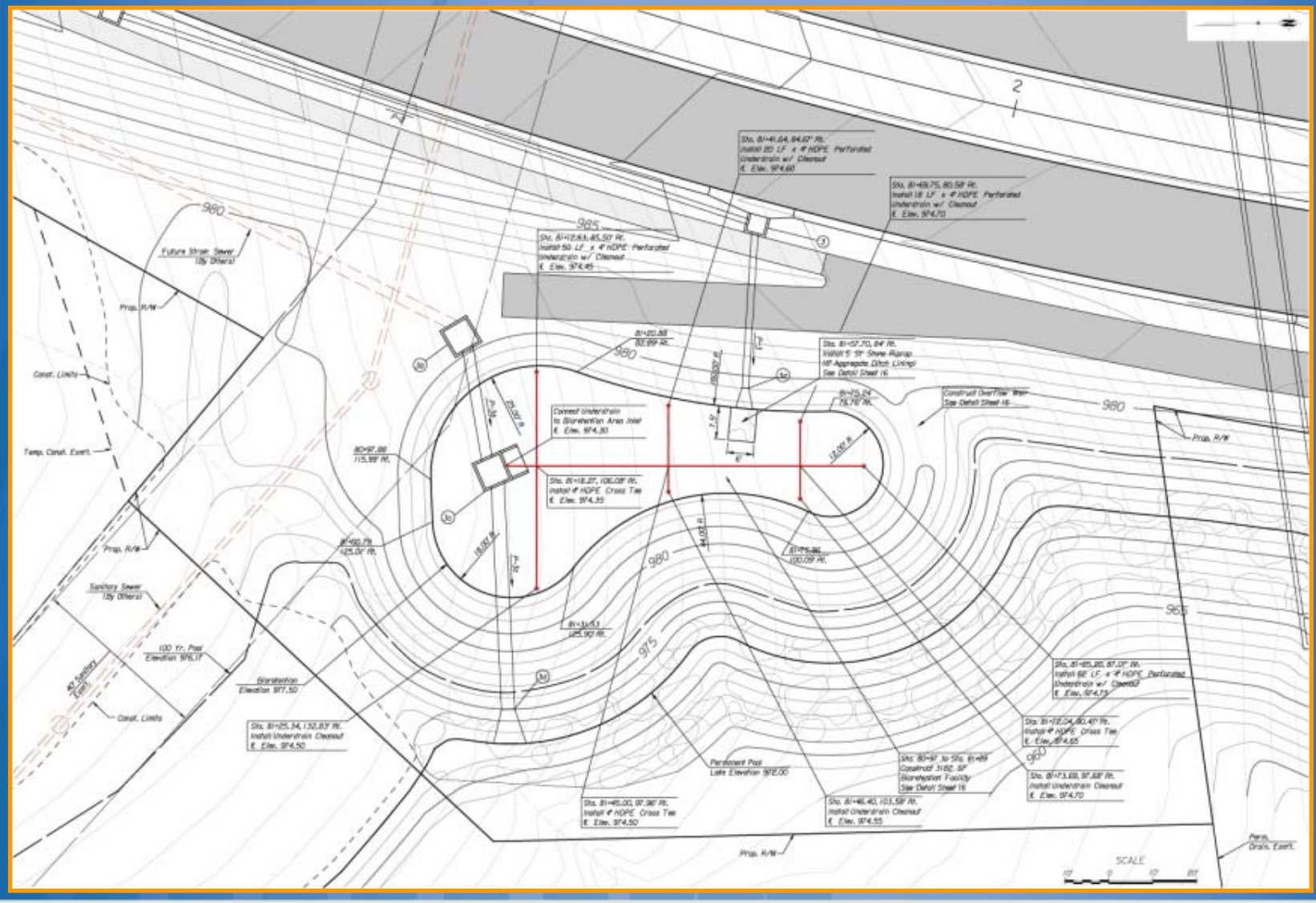
Bioretention at Storm Sewer Outlets – Design Challenges

R/W Constraints

- Parkland Tracts/Greenways
- Roadway Intersections
- Landscape Easements



Construction Issues



Construction Photos

Construction Photos

Conclusions

- ***FIRST Inspire, THEN Require***
- ***LID in Transportation is Possible***
- ***Adapt to Fit Region/Project***